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**DOMINICAN REPUBLIC**

**INNOVATION AND TERRITORIAL INTELLIGENCE LABORATORY FOR  
DOMINICAN CITIES**

**(DR T1160)**

**DONORS MEMORANDUM**

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**PROJECT SUMMARY**  
**INNOVATION AND TERRITORIAL INTELLIGENCE LABORATORY FOR DOMINICAN CITIES**  
**(DR-T1160)**

Urban development in the Dominican Republic has been very dynamic in recent years; the urban population has increased from 16.6% in 1920 to 74.4% in 2010,<sup>1</sup> meaning that three out of every four Dominicans currently live in cities. The country's growth pattern is consistent with that of the region, as Latin America and the Caribbean is currently the world's most urbanized developing region. This accelerated urban development, which has outstripped the pace of institutional-capacity development of urban management, has led to a decline in the quality of life in cities, impacting the delivery and quality of public services. To address this situation, the Dominican Republic's municipal authorities need to build their capacity to address the challenges of growth, particularly those associated with providing high-quality public services in outlying urban areas. Consequently, municipal governments need to formulate regulations and interventions that address these challenges, starting by remedying the lack of databases and management indicators necessary for planning, building scenarios, and generating adequate investment in the relevant areas of the city.

In this context, the project aims to connect the problems that cities in the Dominican cities are facing—and in a broader sense, “urban agglomerations”<sup>2</sup>—with the entrepreneurial and innovative potential they possess. Accordingly, a forum for municipal stakeholders will be established to incubate and accelerate business ventures and ideas from the private sector, academia, civil society, and municipal governments of the targeted areas. This forum will be founded on the idea of design methodologies, experimentation, and information science as essential assets for governance and, particularly, for urban innovation and entrepreneurship. The forum will be established through the Innovation and Territorial Intelligence Laboratory for Dominican Cities (“RD-Lab”). The project, in collaboration with initiatives of the IDB's Housing and Urban Development Division (CSD/HUD), will generate municipal data management capacity, enhancing the transparency of decision-making by creating, presenting, and analyzing information on the current state of Dominican cities. It will also improve the efficiency and quality of urban services, based on the measurement and monitoring of empirical data.

The project will be executed by the Santo Domingo Institute of Technology (INTEC), which will administer the proceeds of the MIF contribution. The project will also include the Santiago Development Council (CEDES), the Santiago Free Zone Corporation (CZFS), the Association of Greater Santo Domingo (MGSD), and the Ministry of Industry, Commerce, and MSMEs (MICM) as strategic partners. Lastly, partnerships will be cultivated with the business sector, public agencies, and international academic institutions, including City College of New York (through the Zahn Innovation Center).

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<sup>1</sup> Inter-American Development Bank, [Sostenibilidad Urbana en América Latina y el Caribe, 2011](#).

<sup>2</sup> Census districts that overlap provincial, departmental, or district lines, or local governments covering urban areas that may fully or partially incorporate two or more of these (INTEC).

## **ANNEXES**

Annex I	Results Matrix
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## **APPENDICES**

Proposed resolution
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**INFORMATION AVAILABLE IN THE TECHNICAL FILES**

Annex III	Diagnostic Needs Assessment of the Executing Agency
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## **ABBREVIATIONS**

CDES	Consejo para el Desarrollo de Santiago [Santiago Development Council]
CDS/HUD	IDB Housing and Urban Development Division
CZFS	Corporación Zona Franca de Santiago [Santiago Free Zone Corporation]
FEDOMU	Federación Dominicana de Municipios [Dominican Federation of Municipalities]
INTEC	Instituto Tecnológico de Santo Domingo [Santo Domingo Institute of Technology]
KNL/KNM	IDB Knowledge Management Division
LMD	Liga Municipal Dominicana [Dominican League of Municipalities]
MICM	Ministry of Industry, Commerce, and MSMEs
MGSD	Mancomunidad del Gran Santo Domingo [Association of Greater Santo Domingo]
MOOCs	Massive open online courses
MSMEs	Micro, small, and medium-sized enterprises

**EXECUTIVE SUMMARY**  
**INNOVATION AND TERRITORIAL INTELLIGENCE LABORATORY FOR DOMINICAN CITIES**  
**(DR-T1160)**

<b>Country and geographic location:</b>	Dominican Republic. A number of cities throughout the country, including Santiago de los Caballeros, Greater Santo Domingo, La Vega, and Bonao.		
<b>Executing agency:</b>	Santo Domingo Institute of Technology (INTEC)		
<b>Coordination with other donors/Bank operations:</b>	The project will coordinate its activities with CEDES, CZFS, MGSD, and MICM as strategic execution partners. The project will also coordinate its activities with the IDB's Knowledge Management Division(KNL/KNM) and Housing and Urban Development Division (CSD/HUD).		
<b>Focus area:</b>	The proposal is aligned with the Inclusive Cities area, as it will help raise the quality of life in urban areas of the Dominican Republic, with an emphasis on the inclusion of marginalized populations.		
<b>Project beneficiaries:</b>	50,000 urban dwellers; four municipal governments; and 30 local entrepreneurs.		
<b>Funding:</b>	Technical cooperation:	US\$815,000	48%
	Investment:		
	Loan:		
	<b>Total MIF contribution:</b>	<b>US\$815,000</b>	<b>48%</b>
	Counterpart:	US\$870,000	52%
	Cofinancing:		
	<b>Total project budget:</b>	<b>US\$1,685,000</b>	<b>100%</b>
<b>Execution and disbursement period:</b>	42 months for execution, and 48 months for disbursement.		
<b>Special contractual conditions:</b>	The following will be conditions precedent to the first disbursement: (i) signature of the agreement between INTEC and the strategic partners (CEDES, CZFS, MGSD, and MICM); (ii) selection of the project executive coordinator; and (iii) submission of the project Operating Regulations.		
<b>Environmental and social impact review:</b>	This operation was screened and classified on 13 February 2017, in accordance with the IDB's Environment and Safeguards Compliance Policy (Operational Policy OP-703). Given its limited impacts and risks, this project is proposed as a category "C" operation.		

## I. THE PROBLEM

### A. Diagnosis of the problem to be addressed by the project

- 1.1 **Country context.** The urbanization rate in Latin America and the Caribbean has increased from 41% in 1950 to 79% in 2010.<sup>3</sup> The Dominican Republic exhibits a similar pattern: its urban population has grown from 16.6% in 1920 to 74.4% in 2010.<sup>4</sup> The country's accelerated urban growth is illustrated by the fact that between 2000 and 2012, 109 square kilometers were developed in the city of Santo Domingo—the equivalent of half of the land area developed from the time of the city's founding in 1496 through 2000.<sup>5</sup> The metropolitan area of Santo Domingo currently comprises the Santo Domingo de Guzmán National District and three municipios of the province of Santo Domingo (Santo Domingo Este, Santo Domingo Norte, and Santo Domingo Oeste). According to the Ministry of Economy and Planning's national report on housing and sustainable urban development, this rapid urban growth has made it extremely difficult for public services to maintain the level of quality and coverage required to meet the needs of the population. This problem has led to gaps in the coordination of urban development policy among the various public and private stakeholders with respect to drafting and implementation of such policy,<sup>6</sup> resulting in disjointed urban development.
- 1.2 **Using open data and predictive analysis to provide public services.** The declining cost of computers, coupled with advances in information and communications technologies, are ushering in a new era of predictive analysis<sup>7</sup> across the globe. Companies such as Amazon, Netflix, and Google are predicting which books, merchandise, and movies their customers prefer. Each day, governments confront a demand for services that outstrips the available resources to satisfy it, amid clamoring for better-quality, lower-cost government services that are delivered faster.<sup>8</sup> Predictive analysis improves government capacity to respond to citizen needs in the context of limited resources; it helps solve the problem of providing better results with the same amount of effort. For example, the London Smart City initiative was launched in 2012 with the aim of leveraging private-sector technological know-how to support municipal management of public services. This initiative illustrated the importance of transforming a city's information ecosystem to make it centralized and open, emphasizing the need for public and private organizations to constantly collect and analyze enormous quantities of data. One of the predictions made based on recent and historical data on transportation usage was that demand for public transportation would increase 50% by 2050, and that the cost of managing those services would increase by €50 billion if the transportation system was not updated more frequently.

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<sup>3</sup> United Nations (2012), World Urbanization Prospects: The 2011 Revision. New York: United Nations.

<sup>4</sup> National Bureau of Statistics. [Tenth National Population and Housing Census 2010](#).

<sup>5</sup> National Bureau of Statistics. 2012. [Territorial Division of the Dominican Republic. Santo Domingo](#).

<sup>6</sup> Ministry of Economy, Planning, and Development. [National Report on Housing and Sustainable Urban Development, 2016](#).

<sup>7</sup> Using historical data to identify patterns and trends that can help anticipate the future.

<sup>8</sup> Inter-American Development Bank, Predictive Analytics: Driving Improvements Using Data. Goldsmith, Crawford, Grohsgal, 2016.

- 1.3 **Data generation and processing experience in the Dominican Republic.** In the Dominican Republic, a number of pioneering experiences in open data management are under way with the public sector. They focus on two complementary tools: (i) the Dominican government's official website (<http://dominicana.gob.do>) and (ii) the open data portal managed by the Office on Ethics and Government Integrity (<http://datos.gob.do>). This latter tool is important because it enables government agencies participating in the initiative to publish their datasets (collections of data in formats that can be reused and downloaded by the public). The main shortcoming of these tools is that they have focused more on providing generic and public ethics data than on service delivery through access to open data. Moreover, no mechanisms have been developed to facilitate automatic analysis of data to identify trends, as in many cases the information is out of date and not structured in a way that facilitates its analysis.
- 1.4 A third experience entails the development of the Improved Climate Information Program (DR CLIMA-Info) (<http://dr-obs.cuny.cuny.edu>) platform, a venture headed up by the Santo Domingo Institute of Technology (INTEC) in collaboration with City College of New York, the Dominican Water Resources Institute, the Dominican Meteorological Office, Fundación Plenitud, and other public and private institutions. This platform is a tool that operates as a clearinghouse mechanism, i.e. a platform that will enable Dominican institutions that generate weather, demographic, and service data to share it using previously agreed-upon standards for open data management. The experiences of public sector agencies, such as INTEC and its collaborators, highlight the opportunities the country has to scale up a territory-based open data management model focused on the needs of the population and on processes for adding value to urban goods and services. Managing open data through a clearinghouse mechanism will enable entrepreneurs and innovators based in the Dominican Republic to access data repositories with the aim of developing apps to meet public-sector, business, and citizen needs for information to address the country's urban development challenges.
- 1.5 **Diagnosis of the problem.** Despite the efforts made to generate and process information, considerable barriers persist to leveraging the inherent opportunities in consolidating urban data, with a view to generating information that can support decision-making processes and urban development policy. The main barriers entail interagency coordination and enabling technologies that require a smart landscape. Specifically, these include: (i) data management capabilities; (ii) computing resources; (iii) limited data analysis capabilities; (iv) broadband access and connectivity problems; (v) challenges involving the interoperability of resources; and, (vi) security and privacy issues. These barriers have a considerable impact on the capacity for political and civic coordination in the country's major urban centers.
- 1.6 **Urban challenges that could benefit from data-centric entrepreneurship and innovation.** Such challenges as mobility or waste management are good examples of the need to generate new solutions, in many cases involving technology- and innovation-based public-private partnerships that incorporate design, experimentation, and information science methodologies. One example of information-technology development potential that relies on civic participation in the Dominican Republic is the "Cuéntame" app, developed by the Municipal

Government of Santiago de los Caballeros.<sup>9</sup> The idea behind this application was to get residents involved in solving problems associated with the delivery of city services, such as solid waste collection, environmental health, and compliance with municipal regulations. The app serves as a channel for citizen complaints as well as citizen communication and engagement.

- 1.7 The country's public, private, and civil society entities need to build their technical capacities and ability to coordinate and cooperate across sectors if they are to use the new open data platform to address city development problems and opportunities. Specifically, coordination with the business sector is key for developing sustainable solutions to the challenges of urban development, based on pilot initiatives that generate the databases and management indicators needed for planning, develop alternative intervention scenarios, and generate adequate investments targeting the relevant parts of cities. The business community of the country's two main urban centers is quite representative of the industrial manufacturing companies that export through the country's duty-free industrial parks. The business community also includes service companies in the health care, energy, commerce, transportation, and training sectors. This community is a very significant producer of data that can be harnessed to optimize high value-added processes, economies of scale and, in turn, identify opportunities for urban improvement driven by innovation and entrepreneurship.

## **B. Project beneficiaries**

- 1.8 First and foremost, the direct beneficiaries of the project will be the inhabitants of the Santo Domingo-Santiago corridor,<sup>10</sup> where most of the country's population resides. Residents of the various municipios and cities along the corridor will also benefit from the development of apps driven by urban data,<sup>11</sup> greater data analytics capacity for decision-making on local issues facing the country, and app development by local governments and urban service providers that help improve service management and delivery to beneficiary communities. The project will also contribute to directly improving a series of municipal public services through the urban business ventures and innovations that undergo the incubation process facilitated by the RD-Lab's platform.
- 1.9 Second, the project will benefit public agencies, local governments, and entrepreneurs seeking to pursue urban initiatives that leverage the data generated, stored, and processed in connection with the performance, management, and use of public goods and services. Lastly, universities will benefit by having access to data and information that are essential for city management, providing the capacity to promote innovation and urban entrepreneurship. The identification and prioritization of urban challenges, and the search for innovation-based solutions will, in turn, empower all of these stakeholders. With the aim of facilitating a more evenly balanced gender parity among the participating entrepreneurs, the project will incorporate the lessons learned from other operations<sup>12</sup> and call specifically for

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<sup>9</sup> Municipal Government of Santiago de los Caballeros, [Cuéntame app](#).

<sup>10</sup> According to data of the 2010 Census (National Statistics Bureau), the corridor spans 156 kilometers and has an average population of 4.6 million people. More than 70% of its residents are low- or middle-income.

<sup>11</sup> As of 2016, the smartphone penetration rate was 80% (World Bank). As of September 2017, 6,373,744 internet service accounts were open, equivalent to 60% of the Dominican population. [Dominican Telecommunications Institute \(INDOTEL\)](#).

<sup>12</sup> Operation DR-T1152: Building the Capacities of Young People to Develop Interactive Digital Technologies.

women entrepreneurs to participate. These efforts will include targeted campaigns, special schedules to accommodate them, and partnerships with agencies that support female entrepreneurship.

## **II. THE SOLUTION**

### **A. Project description**

- 2.1 This project aims to connect the problems that cities in the Dominican Republic are facing with the entrepreneurial and innovative potential they possess through the creation of the RD-Lab. This laboratory will serve as an institutional meeting ground that enables stakeholders to incubate and accelerate business ventures and ideas from the private sector, academia, civil society, and municipal governments of the targeted areas. It will be founded on the idea of design methodologies, experimentation, and information science as essential assets for governance and, particularly, for urban innovation and entrepreneurship.
- 2.2 Data generation and analysis should be an integral part of sustainable and participatory city management. However, evidence from many countries in the region shows that municipal authorities have yet to adopt open data management<sup>13</sup> to any significant degree. By positioning open data as an essential asset for city management, this initiative seeks to promote urban innovation by disseminating and creating digital information that heretofore did not exist and was therefore inaccessible to actors in various sectors who create market opportunities.
- 2.3 The project will also work with CSD/HUD and KNL/KNM to facilitate a greater degree of transparency in municipal public management and decision-making by creating, presenting, and analyzing information on the current state of the cities, and will help improve the efficiency and quality of urban services, based on the measurement and monitoring of empirical data. The project will focus on turning local entrepreneurs into a new source of big data through digital apps that use and generate urban data. The creation of this Innovation and Territorial Intelligence Laboratory has the potential to help the largest Dominican cities attract international entrepreneurial talent (e.g. by providing incentives to “digital nomads”<sup>14</sup> who work from co-working sites in cities), helping superimpose an urban entrepreneurial framework onto the existing institutional ecosystem. In this way, the entrepreneurial ecosystem is strengthened by the cities’ existing attractions (e.g. tourism, history, culture, and gastronomy).

### **B. Main lines of intervention**

- 2.4 The project’s main lines of intervention are geared towards fostering the innovation, development, and acceleration of data-driven business ventures<sup>15</sup> that focus on benefiting cities. These are:

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<sup>13</sup> Open data is both a philosophy and a practice. Its aim is to ensure certain types of data are freely available to everyone, without copyright, intellectual property, or other control mechanisms.

<sup>14</sup> Digital nomads are professionals who uses new technologies to work and pursue a nomadic lifestyle. Digital nomads typically work remotely—from home, cafés, or public libraries—rather than from a stable work environment.

<sup>15</sup> For example, business ventures that collect data via the use of bicycles as a means of transportation (e.g. Biko in Colombia <https://bikoapp.com/>).

- Fostering institutional coordination and partnerships to facilitate the development of open databases that will serve as mechanisms for catalyzing entrepreneurship and innovation processes in cities;
- Promoting collaboration between academics and the private sector to generate data management capacity for improving governance and entrepreneurship;
- Identifying and prioritizing urban challenges via open calls for the presentation of solutions;
- Selecting the most feasible solutions with the highest impact and supporting their development (acceleration, training, and seed capital, following models such as the Open Data Incubator for Europe, which conducts a six-month incubation program for data-centric enterprise models);<sup>16</sup>
- Supporting processes to scale solutions by seeking out partnerships with the public sector (e.g. public procurement) and the private sector (value chains and managing business/client opportunities through data); and
- Promoting a culture of entrepreneurship and innovation in cities via training and special events (e.g. ideathons and hackathons) that will make it possible to identify entrepreneurs, train them, and strengthen their capacities.

2.5 **Innovation.** The project is highly innovative, as it operates through a public-private partnership headed up a higher education institute (INTEC). INTEC is distinguished by the innovation and complementarity of its academic offerings in the fields of engineering, business, health sciences, basic and environmental sciences, and social sciences and the humanities. The project facilitates open data on issues that are critical for managing city services. It will promote the development of new models for innovating, adding value, and will also generate efficiencies in cities through a pioneering innovation and territorial intelligence laboratory in the country. In addition to facilitating knowledge and best practices, the RD-Lab will also coordinate initiatives and ideas originating in civil society as well as in the private and public sectors.

### C. Project components

#### **Component I: Diagnostic assessment and analysis of capacities and resources (MIF US\$110,500; Counterpart US\$115,800)**

2.6 First, the objective of this component is to build a bridge for collaboration between the academic sector (which has capacity to generate and analyze territorial data), municipal governments, and the private sector by conducting a diagnostic assessment of data-related opportunities and urban challenges that need to be addressed. This assessment begins with an evaluation of the available data, both public and private, and the establishment of mechanisms to generate and/or assimilate that information. In conducting this evaluation, the executing agency will work closely with project partners to map activities and data, while at the same time conducting a rapid assessment of the technical and technological capacities of the project partners. After the data and institutional needs have been identified, work can begin to identify areas that require strengthening to develop a strategy

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<sup>16</sup> [Open Data Incubator](#).

and build an open data platform for cities. This mapping will also facilitate conditions for public-private coordination with a view to managing and applying the data, and will also lay the groundwork for creating an entity and municipal teams capable of managing territorial data.

- 2.7 Second, and building on the institutional recommendations and diagnostic assessment of the component, the CEDES, the MICM, the MGSD, and the main municipal governments involved will form a team to coordinate data management and collection. As the inaugural project of the public-private partnership between INTEC, the Dominican League of Municipalities (LMD), and local governments, this component will undertake to identify current urban challenges with the aim of prioritizing and addressing them with the launch of RD-Lab. Lastly, an outreach campaign will be conducted to raise the awareness among public, private, and civil society leaders as to what the RD-Lab will be and the services it will offer.
- 2.8 The activities to be carried out in Component I include: (i) mapping of data assets, in both the public and the private sector, via cooperation between the executing agency and key LMD and municipal government actors; (ii) identifying the basic institutional needs that require a public-private open data management strategy (executing agency-LMD-municipal governments) and mapping of the involved actors; (iii) developing an open data management infrastructure, with public-private usage and management protocols for the executing agency and the designated municipal teams; (iv) conducting a collaborative framework study to assess and compile a list of the city's challenges, focusing on innovation and entrepreneurship; (v) identifying and developing the RD-Lab business model; and (vi) managing and registering intellectual property rights in the data and other legal agreements.

**Component II: Promoting an entrepreneurial culture based on open data and urban innovation (MIF US\$253,409; Counterpart US\$116,991)**

- 2.9 The objective of this component is to foster a culture of entrepreneurship with citizens interested in pursuing urban business ventures, build their capacities, and identify high-potential enterprises based on territorial data. The component will include training for entrepreneurs and municipal teams in certain sectors (e.g. entrepreneurs with public responsibilities) in a variety of topics and related tools. The component will also facilitate special events (e.g. ideathons, hackathons, forums, and debates) and facilitate the registration and monitoring of local community entrepreneurs trained in all of the aforementioned activities. Lastly, the component will promote cooperative arrangements for local and national social actors to consolidate the ecosystem, thereby ensuring the project's sustainability and resulting initiatives over time.
- 2.10 The activities under Component II include: (i) a variety of face-to-face and online<sup>17</sup> training (e.g. workshops, webinars, MOOCs, and other online tools); (ii) managing partnerships in the innovation and entrepreneurship ecosystem (with other incubators and entrepreneurship actors in the country); (iii) promoting entrepreneurship in cities; (iv) holding innovation and entrepreneurship events; and (v) calling for and selecting proposals to be supported.

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<sup>17</sup> The training modules and MOOCs will be developed in coordination with the Bank's Knowledge and Learning Sector.

**Component III: Value creation and business venture acceleration.  
(MIF US\$130,500; Counterpart US\$405,000)**

- 2.11 The objective of this component is to support the entrepreneurs identified in Component II during the incubation and acceleration processes. Accordingly, business ventures will be supported with technical training in business plan design. In some cases, financial support will be provided through seed capital investments to facilitate business development. All enterprises will receive training and/or coaching, and will be matched with a mentor. Moreover, the RD-Lab will seek to attract enterprises and models that are already operating successfully at the international level and whose entrepreneurs are interested in expanding their models in Dominican cities; it will also connect them with actors who could become partners in implementing such models there.
- 2.12 The activities to be carried out under Component III include: (i) supporting the design and development of business plans; (ii) contributing seed funds;<sup>18</sup> (iii) providing technical assistance and coaching; (iv) promoting the replication of best practices and international success stories; and (v) supporting entrepreneurs with more opportunities for expansion in their search for market opportunities.

**Component IV: Communication and strategic agreements for replicating and scaling up the RD-Lab (MIF: US\$107,000; Counterpart: US\$105,000)**

- 2.13 This component crosscuts the other three components. Its objective is to consolidate and expand the RD-Lab's work through strategic partnerships with other data-innovation laboratories to strengthen the lab's services. Part of this work is to develop communication tools and RD-Lab branding activities, as well as plan events and knowledge products to promote it. Lastly, the component includes specific activities to ensure the RD-Lab's sustainability model, facilitating the consolidation of its structure through project management and the sale of services.
- 2.14 The activities under Component IV include: (i) exchange visits; (ii) RD-Lab communication strategy development associated with its data management and urban entrepreneurship service offerings; (iii) a "Data and the City" conference; and (iv) preparation of case studies, among other outputs, to raise awareness of the RD-Lab and facilitate its sustainability and replicability. With respect to evaluating the project, there are two main questions: (i) Is it feasible to create incentives for collaboration between public- and private-sector entities for sharing open data that is relevant for the city?; and (ii) Is it possible to develop open data-based entrepreneurship and innovation processes that facilitate innovation relevant to the challenges facing Dominican cities?

**D. Outcomes, impact, and monitoring and evaluation**

- 2.15 The project's objective is to connect the problems that Dominican cities and urban agglomerations are facing with the entrepreneurial and innovative potential they possess. Based on this objective, the project will set up an innovation and territorial intelligence laboratory, the outcome of which will be the adoption, by Dominican

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<sup>18</sup> A document will be drafted to establish the conditions for using these seed funds, which will form part of the partners' counterpart contribution. These funds will be administered by INTEC based on specific agreements with the partners who provide them. The CEDES will lead the contribution of resources to support the business ventures that emerge from the project.

- cities, of at least five innovative data-based models of municipal management that benefit their inhabitants.
- 2.16 Some key project indicators will include: citizens benefited from solutions developed through the RD-Lab; innovations adopted that benefit cities; housing developments and public spaces impacted by RD-Lab initiatives; institutions that contribute to data catalogues; entrepreneurs supported; public employees trained in innovation; and individuals who participate in the project's social networks and digital initiatives.
- 2.17 Considering the novelty of initiatives of this kind, for which well-established development impact indicators and standards do not yet exist, the measurement of the project's outcomes represents a unique learning opportunity. Accordingly, the project includes a monitoring and early evaluation strategy that make it possible to extract useful knowledge and lessons with the aim of identifying the models' challenges early on. It also reveals the practical lessons to be learned from them and the evidence of their impact. The open databases to be created through the project will also make it significantly easier to measure the project's outcomes, as they will provide tools for such measurement.
- 2.18 The execution unit will be responsible for monitoring the project with a focus on monitoring and evaluating the RD-Lab that centers on generating municipal innovation and entrepreneurship management systems and capacities. It will also focus on strengthening and coordinating the information with provincial or national database systems.

### **III. ALIGNMENT WITH THE IDB GROUP, SCALABILITY, AND RISKS**

#### **A. Alignment with the IDB Group**

- 3.1 The Bank's country strategy with the Dominican Republic 2017-2020, which is currently being drafted,<sup>19</sup> proposes contributing to the 2016-2020 Government Plan with the same objective of promoting inclusive and sustainable growth, and therefore prioritizes interventions in three pillars: (i) access to quality basic services; (ii) expansion of productive opportunities and services; and (iii) public management, institutional framework, and transparency. The country strategy with the Dominican Republic 2017-2020 is aligned with the Update to the Institutional Strategy 2010-2020 and the IIC's 2016-2019 Business Plan. This project will contribute to the "access to quality basic services" pillar, by promoting innovation and business ventures that improve the quality of life in Dominican cities, and to the "public management, institutional framework, and transparency" pillar, by collecting data on cities and making them public. It also fits within two of the five Priority Business Areas of the IIC Business Plan (i.e. supporting micro, small, and medium sized enterprises (MSMEs) and driving innovation and technology) and the IDB's Urban Development and Housing Sector Framework Document, through the strategic priority of infrastructure and urban services.

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<sup>19</sup> The 2016-2020 Government Plan includes four areas of strategic focus set out in the 2030 National Development Strategy: (i) decent living conditions for all; (ii) inclusive economy and productive development; (iii) a more efficient and participatory public sector; and (iv) sustainable environmental and economic models.

- 3.2 The proposal is aligned with the MIF's Inclusive Cities area, as it will help improve the quality of life in Dominican cities, emphasizing the inclusion of marginalized populations. Within the Inclusive Cities area specifically, the project will target the areas of improved urban services and impact-driven entrepreneurs.

## **B. Scalability**

- 3.3 The project includes elements that are essential to ensuring its potential for scale-up, such as: economic and social sustainability, openness and reuse of data, citizen participation, and integration and effective management with networks of other organizations. IDB specialists in open data management (KNL/KNM) and city diagnostics (CSD/HUD) will support execution of the project with the objective of linking it to the IDB's operations in the country. Thus, the project's intervention model and lessons generated should be replicable in other cities in the country and region.<sup>20</sup> Accordingly, the project includes activities in the region to disseminate its findings and recommendations, making it possible to extend the project's reach and impact. Although the project includes a consulting study on the RD-Lab business model, the expectation is that sustainability will be the result of a combination of selling its lab services (especially data management); cooperation funding and donations; and its entrepreneurship, innovation, and open data training offerings.

## **C. Project risks**

- 3.4 One of the project's main risks is that the key public and/or private stakeholders may not develop the mechanisms necessary to build the level of trust required to ensure cooperation among the entities, whether due to a lack of institutional capacity or possible resistance on the part of traditional economic actors to implementing the selected ventures and initiatives, owing to their perception that some of the initiatives could affect their interests or market position.<sup>21</sup> To mitigate this risk, one of the project's first activities will be to create mechanisms for ongoing dialogue, with roundtables for interagency and intersectoral coordination between the MICM, the CEDES, the MGSD, the Dominican Federation of Municipalities (FEDOMU), and the LMD, as well as with businesses in the main cities. This will provide a forum for sharing information and an open channel of communication. In addition, a governing board will be established, which will provide strategic guidelines for project execution and approve the project's annual work plans as well as all actions considered strategic to the project.
- 3.5 A corollary of the foregoing risk is the possibility that public and private entities may not be willing to share data or information relevant to the development of innovations and business ventures within the RD-Lab. The mitigation measure for the first risk should also serve to facilitate dialogue and agreements that enable the formal, secure exchange of data and information.
- 3.6 Lastly, there is a risk that the private or public sectors will not make a large enough financial commitment to facilitate the scaling up of the solutions that emerge from the RD-Lab. As in all financial challenges, the key lies in ensuring the intrinsic value of the solutions each business venture and/or innovation offers to the actors who

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<sup>20</sup> Particularly in partnership with the Bank's Emerging and Sustainable Cities Initiative.

<sup>21</sup> As observed, for example, in existing conflicts between the tourism or mobility models and collaborative economy models.

adopt them, and that these solutions incorporate the vision of that actor from the start of the process.

#### IV. COST AND FINANCING

- 4.1 The total cost of the project is US\$1,685,000, of which US\$815,000 (48%) will be contributed by the MIF and US\$870,000 (52%) as the counterpart contribution. The counterpart will be provided by INTEC through partnerships with the CEDES, the MICM, the CZFS, the FEDOMU, the LMD, and the Special Projects Office of the Presidency of the Dominican Republic (DIGEPEP). The instrument used will be nonreimbursable technical-cooperation funding.

Project components	MIF (US\$)	Counterpart (US\$)	Total (US\$)
Component I: Diagnostic assessment and analysis of capacities and resources	110,500	115,800	226,300
Component II: Promoting an entrepreneurial culture based on open data and urban innovation	253,409	116,991	370,400
Component III: Value creation and business venture acceleration	130,500	405,000	535,500
Component IV: Communication and strategic agreements for replicating and scaling up the RD-Lab	107,000	105,000	212,000
Executing agency	162,540	127,209	289,749
Evaluation and contingencies	51,051		51,051
<b>Grand total</b>	<b>815,000</b>	<b>870,000</b>	<b>1,685,000</b>
<b>% financing</b>	<b>48%</b>	<b>52%</b>	<b>100%</b>

#### V. PROJECT COUNTERPART AND IMPLEMENTATION STRUCTURE

##### A. Executing agency

- 5.1 The project will be executed by INTEC, which will administer the proceeds of the MIF contribution. INTEC is a private, nonprofit institution of higher learning with a public mandate. It is distinguished by the innovation and complementarity of its academic offerings in the fields of engineering, business, health sciences, basic and environmental sciences, and social sciences and the humanities. INTEC performs a wide range of research and actively promotes entrepreneurship through its Center for Entrepreneurship and Innovation. RD-Lab is to be based within INTEC, and will have access to open data management experts from INTEC, the CEDES, the MICM, the MGSD, and the municipal governments involved through the FEDOMU and the LMD, as well as one or more long-term consultants specializing in entrepreneur training.

##### B. Key strategic allies

- 5.2 The MICM, the CEDES, the CZFS, and the MGSD will participate in the execution of the project as strategic partners.<sup>22</sup> The FEDOMU, the LMD, and the Office of the

<sup>22</sup> The CEDES, the MGSD, the MICM, and the CZFS will sign a cooperation agreement with INTEC, which will be a condition precedent to the start of the project and will lay the institutional groundwork for the RD-Lab.

Deputy Minister of SMEs (an agency of the Ministry of Industry, Commerce, and MSMEs), and others are expected to collaborate and provide support. The project will also be supported by City College of New York, through the Zahn Innovation Center, which has an existing institutional partnership with INTEC and extensive experience with innovation projects and entrepreneurs.

**C. Structure and implementation arrangements**

- 5.3 An executing unit with a basic operating structure (coordinator and administrative/financial assistant) will be established for project execution.
- 5.4 A governing board and an operating committee will be formed as part of the project's governance structure. The governing board will be comprised of the most senior authorities participating in the project: INTEC; the CEDES (which will chair the board); the MICM; the MGSD; FEDOMU; the LMD; a representative of the Office of the Deputy Minister of SMEs; and the CZFS, which will represent the private sector. Other public or private individuals may also serve on the governing board, provided they express interest in participating in the laboratory, contribute funds to it, and are accepted by the founding members. During the first year, the governing board will meet on a quarterly basis. The frequency of the meetings may be modified by agreement of the parties. Beginning in the project's second year, the governing board will meet annually unless any of the participating entities requests otherwise. The operating committee will be comprised of individuals appointed by the governing board (each member of the board will have the right to appoint one representative to the operating committee). The operating committee will meet monthly for the first year to support the project. The MIF and the project coordinator will both participate in the meetings of the governing board and the operating committee, where they will have the right to speak but not to vote. INTEC, as executing agency and via the project coordinator, will serve as secretary of both the board and the committee.
- 5.5 The functions of the governing board will include: approving new board members; appointing members of the operating committee; providing the committee with strategic guidelines for project execution; and approving the project's annual work plans as well as all actions considered strategic to the project. In turn, the functions of the operating committee will include: approving the hiring of the project coordinator; approving the project's annual work plans and submitting them to the governing board for approval; approving the project's Operating Regulations and any amendments thereto; approving semiannual progress reports and evaluation reports; and making arrangements to establish agreements with other public and private institutions that contribute to the project's sustainability, submitting these proposals to the governing board for approval.

**VI. ATTAINMENT OF MILESTONES AND SPECIAL FIDUCIARY ARRANGEMENTS**

- 6.1 Results-based disbursements and fiduciary arrangements. The executing agency will adhere to the standard MIF arrangements for results-based disbursements, procurement, and financial management spelled out in Annex IV.

## **VII. ACCESS TO INFORMATION AND INTELLECTUAL PROPERTY**

- 7.1 **Access to information.** The information contained in this document is classified as public, pursuant to the Bank's Access to Information Policy<sup>23</sup> (document GN-1831-33).

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<sup>23</sup> Link to the [Bank's Access to Information Policy](#).